EN

## Table of Contents

Target group ..... 21
General safety notes ..... 21
Structure ..... 22
Intended use ..... 23
Function ..... 23
Technical data ..... 23
Operation ..... 24
- Release flush ..... 24
- Adjust water temperature ..... 24
- Malfunctions during operation ..... 25
Maintenance ..... 25
- Maintenance interval ..... 25
- Cleaning the surface ..... 25
- Cleaning or replacing the tap aerator ..... 26
- Cleaning or replacing the filter ..... 26
Service ..... 28
- Troubleshooting ..... 28
- Settings using the HyTronic Service Handy ..... 30
- Adjusting the water temperature (internal mixer) ..... 33
- Limit the hot water proportion ..... 34
- Reset sensor ..... 35
Spare parts ..... 36
Disposal ..... 38
Contact ..... 38

## Target group

These operating instructions are adressed to the operator of the HyTronic automatic tap and to the technical expert (plumber, Geberit service technician).

## General safety notes

### These operating instructions

These operating instructions contain all important information for the use and maintenance of the HyTronic automatic tap. Read the instructions before carrying out manipulations on the tap.
Keep the instructions in a safe place and, if required, provide them to a technical expert.

### Installation

The HyTronic automatic tap must only be installed and mounted according to the separate installation instructions. The necessary work must be carried out by a technical expert.
It is not permitted to change or manipulate the HyTronic automatic tap, to install any additional modules or to attempt any repairs.

### Operation, maintenance

Maintenance work is only allowed to be performed by the owner as it is described in these instructions.

### Service

Service work is only allowed to be carried out by a technical expert. Incorrect work can lead to accidents, property damage and malfunctions.

B539-001&BDC © 05-2007

### Explanation of symbols

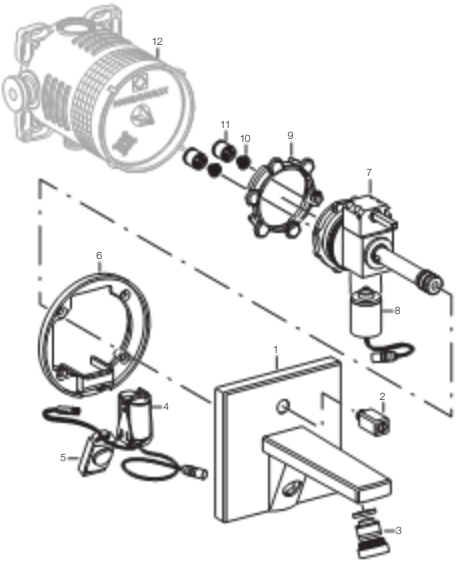
| Symbol | Meaning |
|---|---|
| CAUTION | Refers to a situation of potential danger that may cause slight or medium injury or property damage. |
| | Refers to important information. |
| | Refers to an important acoustical signal or sound. |
| 00:20:00 | Wait until the stated time has elapsed! |
| | Drinking water is switched off / central tap is closed. |
| | Drinking water is switched on / central tap is open. |
| max. 16 bar | Do not exceed the stated maximum material pressure! |
| | Temperature high / low |

The national statutory guarantee applies. For information about guarantee services above and beyond this scope, please contact your responsible Geberit sales company directly or visit www.geberit.com.

## Structure

### HyTronic87/88

1 Cover
2 Mixer lever
3 Tap aerator
4 Power supply adapter
5 Electronics module
6 Solenoid support
7 Valve block
8 Solenoid valve
9 Bajonet nut with spring
10 Basket filter
11 Non-return valve
12 HANSAVAROX concealed base unit (not included in the scope of delivery)




B539-0011&BDC © 05-2007



GEBERIT

EN

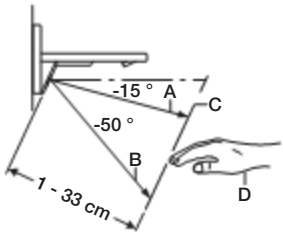
## Intended use

**Intended use**

The HyTronic automatic taps are intended for the flushing of washbasins and the therein usual use. In case of misuse, warranty claims and liability claims for personal injuries and property damages are not accepted.

## Function

The sensor works with two infrared beams*. If at least one of the beams is reflected by an object (e.g. hand) the electronics give the solenoid valve the signal to open - water runs. The distance when a flush is released is called detection distance. The beams can be switched off separately in case of disturbing external influences. The tap offers the possibility to adjust different functions. In the "Service" chapter the adjustment of the functions is described.




A Upper infrared beam (faces 15 ° downwards)
B Lower infrared beam (faces 50 ° downwards)
C Detection distance (factory setting 16 - 18 cm)
D User hand (when it is detected, water runs)

* For humans, infrared is an invisible light (no sound waves or the like)

## Technical data

**Mains-operated taps HyTronic87/88**

| | | |
|---|---|---|
| Material | Chromium plated brass | |
| Flow rate with tap aerator | 6.0 | l/min. |
| Flow rate | > 0.1 | l/s |
| Humidity | < 100% | relative |
| Pressure range during operation | 0.5 - 8 | bar |
| Air temperature | 1 - 40 | °C |
| Maximum temperature during operation | temporarily max. 90 | °C |
| Differentiated pressure HW/CW | max. 1.5 | bar |
| Operating voltage | 12 | V AC |

B539-001&BDC © 05-2007

## Operation

### Operation

**CAUTION**
**Hot water can burn the skin.**
- To test the temperature hold your hands briefly and carefully under the water.

**Release flush**

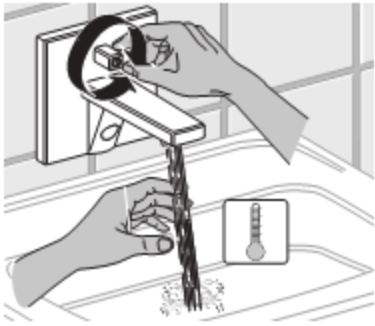
Hold your hand into the area where you expect the water jet. The water starts to run. Remove your hands and the water stops.

**Adjust water temperature**

The temperature cannot be adjusted with the HyTronic automatic tap for cold water.

With HyTronic automatic taps with internal mixer, the temperature can only be adjusted by a specialist.

Turn the mixer lever to the position where the water has the required temperature



B539-001&BDC © 05-2007



GEBERIT

EN

### Malfunctions during operation

| Malfunction | Possible cause | Remedy |
|---|---|---|
| Not enough water is running | Filter is blocked | • Call a technical expert |
| | Tap aerator contaminated | **Clean tap aerator**<br>• See "Maintenance" |
| | Pipe pressure too low | • Call a technical expert |
| Water does not run | No pipe pressure | • Call a technical expert |
| | No mains current (mains-operated models) | • Call a technical expert |
| Water does not stop | Tap damaged | • Close the water supply<br>• Call a technical expert |
| Water runs out | Tap is leaking | • Close the water supply<br>• Call a technical expert |

## Maintenance

### Maintenance interval

If necessary or at the latest in the specified intervals, the following maintenance work is required:

- Cleaning the surface - every week, done by the owner
- Cleaning the tap aerator - every year, done by the owner
- Cleaning the filter - every six months, done by the specialist

### Maintenance work

**Cleaning the surface**

The tap can be deactivated for about 90 seconds for cleaning purposes.

**Prerequisites**

The cleaning mode is set (see "Settings using the HyTronic Service Handy")

**CAUTION**
**Aggressive and scouring cleaning agents can damage the surface.**
**Never use aggressive cleaning agents that contain chlorine, are acidic, abrasive or corrosive. Only use water and a mild cleaning agent.**

We cannot accept any complaints arising from damage caused by improper treatment with cleaning agents.

**1** Use your hand to cover the sensor completely until the water stops. (takes 5 seconds)

B539-001&BDC © 05-2007

**2** Remove your hand. The cleaning function is now active

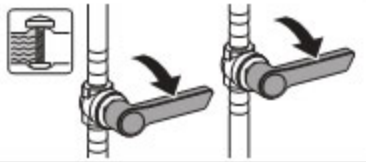
**3** Clean the tap with a soft, damp cloth

**4** Dry the tap with a soft cloth

**5** The tap can be used again as usual after the 90 seconds have elapsed.

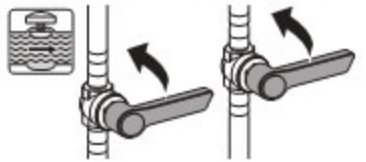
**Cleaning or replacing the tap aerator**

**1**



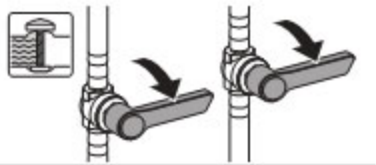
**2** Unscrew the tap aerator with the enclosed key for cleaning or replacement purposes

**3**

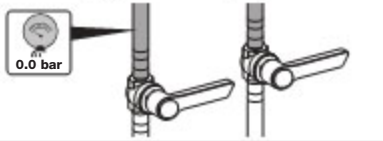


**Cleaning or replacing the filter**

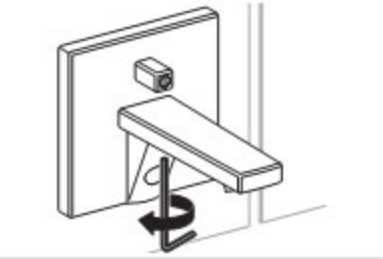
**1**



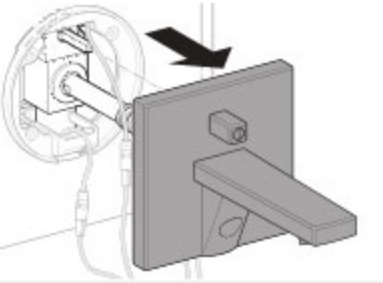
**2**




**3**



**4**



**5**

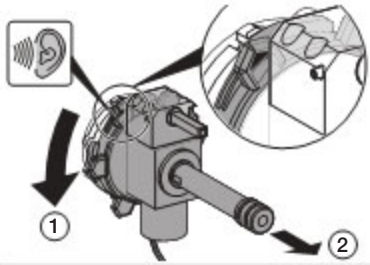
B539-0018&BDC © 05-2007



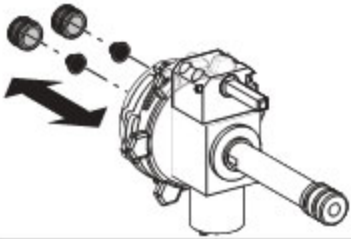
GEBERIT

EN

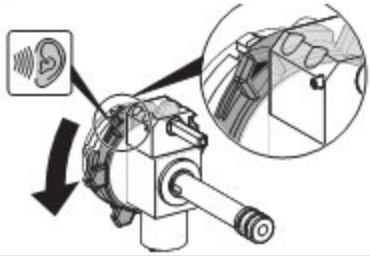
**6** Turn the bajonet nut until you hear it locking and then remove the valve block



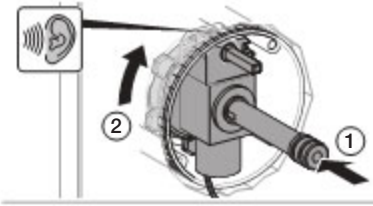

**7** Clean the filter. Filers that are contaminated or damaged must be replaced.



**8** Turn the bajonet nut until you hear it locking

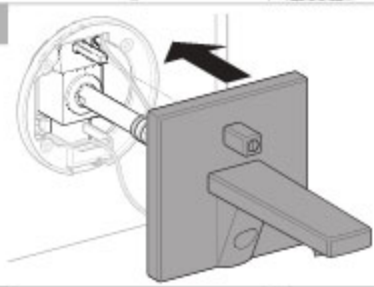


**9** Insert the valve block. The bajonet nut self-locks in its end position.

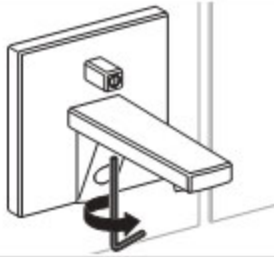



**10**

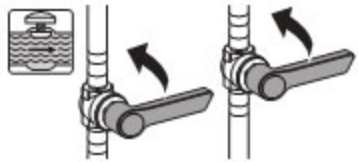
**11**



**12**



**13**



B539-001&BDC © 05-2007

## Service

### Troubleshooting

| Problem | Possible cause | Remedy |
|---|---|---|
| Water does not run | Water supply is closed | **Open the water supply** |
| | Tap aerator is blocked or contaminated | **Clean or replace the tap aerator**<br>• See "Maintenance, cleaning or replacing the tap aerator" |
| | Tap aerator is blocked or contaminated | **Clean or replace filter**<br>• See "Service, cleaning or replacing the filter" |
| | No pressure on water net | **Check water pressure**<br>• Restore water pressure |
| | Electrical cable plug connection between power supply unit and power supply adapter is disconnected (mains-operated taps) | **Restore electrical cable plug connection** |
| | Power supply adapter terminals are corroded (mains-operated taps) | **Clean power supply adapter terminals or replace power supply adapter**<br>• See "Spare parts" |
| | Connection cable is kinked or broken (mains-operated taps) | **Replace faulty parts**<br>• See "Spare parts" |
| | No mains current (mains-operated taps) | **Check mains current supply**<br>• Ensure power supply |
| | Solenoid valve is faulty | **Replace solenoid valve**<br>• See "Spare parts" |
| | Tap is in cleaning mode | **Wait for the end of the cleaning mode (approx. 2 minutes)** |
| | Electronics module is faulty | **Contact Geberit service telephone or replace electronics module**<br>• See "Spare parts" |
| | Power supply adapter is faulty (mains-operated taps) | **Contact Geberit service telephone or replace power supply adapter**<br>• See "Spare parts" |
| | The solenoid in the solenoid support is missing or faulty | **Replace solenoid support**<br>• See "Spare parts" |
| | Sensor detection distance is not adjusted correctly | **Adjust the detection distance correctly**<br>• See "Service, Settings using the HyTronic Service Handy" |
| | Sensor window is scratched or contaminated | **Clean the sensor window carefully or replace it**<br>• See "Spare parts" |
| | Interferring reflections from the washbasin | **Adjust the detection distance correctly**<br>• See "Service, Settings using the HyTronic Service Handy" |

B539-0018&BDC © 05-2007

EN

| Problem | Possible cause | Remedy |
|---|---|---|
| Water always runs and stops if an object appears in the detection range | Connector between electronics module and solenoid valve is connected the wrong way round | **Connect plug connection correctly** |
| Continuous flow (water does not stop) | Interferring objects in the detection range | **Remove objects from the detection range**<br>• See "Service, Settings using the HyTronic Service Handy" |
| | Electronics module is faulty | **Replace electronics module**<br>• See "Spare parts" |
| | Wrong sensor mode | **Change sensor mode or reset sensor**<br>• See "Service, Settings using the HyTronic Service Handy or Reset Sensor" |
| | Pressure on water net is too high | **Check pressure on water net**<br>• Adjust net water pressure to 0.5 - 8.0 bar |
| | Solenoid valve is faulty | **Replace solenoid valve**<br>• See "Spare parts" |
| Water starts to run by itself | Sensor window is scratched or contaminated | **Clean or replace sensor window**<br>• See "Spare parts" |
| | Tap is disturbed by influences in the room (mirrors, metal surfaces, glass washbasins, etc.) | **Reset sensor**<br>• See "Service - Reset sensor" |
| | Pressure fluctuations in the water net | **Install suitable line pressure regulator** |
| Tap is leaking - water runs out | Leaks in water way, faulty seals | **Check connections in water way**<br>• Replace seals if faulty |
| | Water drops out of water outlet, solenoid valve does not close properly | **Clean or replace solenoid valve**<br>• See "Spare parts" |
| Temperature cannot be adjusted properly | No or not enough hot or cold water. Angle stop valves are not completely open | **Open angle stop valves completely** |
| | Filter in water supply valve is blocked or contaminated | **Clean or replace filter**<br>• See "Maintenance, cleaning or replacing the filter" |
| | Non-return valve in housing is blocked | **Rectify blocking** |
| | Water temperature is too low or too high | **Check temperature of water net or boiler** |
| | Water temperature is too low or too high (Models with internal mixer) | **Set the internal mixer**<br>• See "Service - Service work" |
| | Water temperature is too low | **Change hot water limiter**<br>• See "Service - Service work" |

B539-001&BDC © 05-2007

## Settings using the HyTronic Service Handy

The functions which are described here are only allowed to be set by a technical expert.
The functions which are described for the taps here can be set individually using the HyTronic Service Handy. The numbers and terms in the "Menu point" column correspond to those displayed on the HyTronic Service Handy. Further information can be found in the operating instructions of the HyTronic Service Handy.

**Commands**

| Menu point [EN] [DE] | Description | Application | Setting range | Factory setting |
|---|---|---|---|---|
| 20 [Valve] [Ventil] | Switch valve. Flushes until it is switched off again (stops automatically after 10 minutes). | a) Functional check of the valve b) Flushing of standing water (stagnation) b) Disinfection of the line system and the tap (minimum 3 minutes at a minimum of 70° C) d) Winter discharge | On = "OK" Off = "OK" | Off |
| 21 [RangeTest] [TestErfas] | Check detection range. If an object enters the detection range the red LED in the sensor window starts to light. No flush is initiated (switches off automatically after 90 seconds). | Problems with user detection | On = "OK" Off = "OK" | Off |
| 22 [ResetSens] [ResetSens] | Reset sensor. Sensor recalibrates itself. | a) In the case of detection malfunctions b) Surroundings have changed (e.g. new washbasin) | Start = "OK" | - |
| 23 [FactrySet] [Werkseinst] | Factory settings. All functions are reset to the factory setting. | In case of malfunctions | Start = "OK" | - |
| 24 [CleanMode] [Reinigung] | Switch cleaning mode. The tap is inactive for 90 seconds. | Clean the tap and the washbasin without the water running. | Start = "OK" | - |

**Programs**

| Menu point [EN] [DE] | Description | Application | Setting range | Factory setting |
|---|---|---|---|---|
| 30 [MainProgr] [Hauptmenü] | Select main menu. Presence: Flushes as long as an object is in the detection range. Water saving: See menu 44 Run-on time: See menu 43 | Select one of the three programs. | Presence = [A] Water saving = [B] Run-on = [C] | Presence [A] |
| 31 [Esaver] [E Sparen] | Select energy saving program. Reduces the reaction speed of the sensor after the time 40 [ESaverT] has elapsed after the last user. | Extension of the battery service life. | On = [ON] Off = [OFF] | Off [OFF] |
| 32 [CleanEn] [FreiReini] | Release cleaning. Enables the tap to start the cleaning program manually (see "Maintenance"). | Prerequisite for starting the manual cleaning function | On = [ON] Off = [OFF] | Off [OFF] |

B539-0018&BDC © 05-2007



GEBERIT

EN

**Programs**

| Menu point [EN] [DE] | Description | Application | Setting range | Factory setting |
|---|---|---|---|---|
| 33 [IntFlush] [IntervSp] | Select interval flush program. Starts the interval flush program. The tap flushes automatically at the interval determined by the input value 42 [IntervalT], for the duration of the input value 41 [IntFlushT] nach der letzten Benutzung. | a) Hygiene<br>b) Flushing of standing water (stagnation) | On = [ON]<br>Off = [OFF] | Off [OFF] |

**Parameter**

| Menu point [EN] [DE] | Description | Application | Setting range | Factory setting |
|---|---|---|---|---|
| 40 [ESaverT] [EnerSparZ] | Set the setting time energy saver.<br>Is active when the menu 31 "Select energy saver" is [ON] | - | 6 - 48 hours [...] | 24 hours [24] |
| 41 [IntFlushT] [IntervSpZ] | Set interval flush - flushing time.<br>Is active when the menu 33 "Select interval flush" is [ON] | - | 3 - 180 seconds [...] | 3 seconds [3] |
| 42 [IntervalT] [IntervalZ] | Set interval flush - flushing interval.<br>Is active when the menu 33 "Select interval flushing" is [ON] | - | 1 - 168 hours [...] | 168 hours [168] |
| 43 [RunOnTime] [NachlaufZ] | Set the run-on time<br>Is active when the menu 30 "Select main menu" is [C] selected. The tap continues to flush with the input value after the object has been removed from the detection range. | a) Hygiene<br>b) Cleaning of implements | 1 - 180 seconds [...] | 120 seconds [120] |
| 44 [WSaverT] [TWSparenZ] | Set the run time drinking water saving.<br>Is active when the menu 30 "Select main menu" is [B] selected. The tap flushes as long as an object is in the detection range but not longer than the input value. | a) Water saving.<br>b) Extracts a certain amount of water | 3 - 180 seconds [...] | 10 seconds [10] |
| 45 [DetectRng] [Erfassdis] | Set the detection distance.<br>Manual setting [0]: Place hand into detection range until the LED in the sensor window flashes. Hold your hand in the desired detection range until the LED lights for a second and a water impulse follows. | Individual adjustment of the detection range | Manual 5-33cm=[0]<br>11 - 14 cm = [1]<br>16 - 19 cm = [2]<br>21 - 24 cm = [3]<br>26 - 29 cm = [4]<br>31 - 33 cm = [5] | 16 - 19 cm [2] for HyTronic 85 - 87<br><br>31 - 33 cm [5] for HyTronic88 |

B539-001&BDC © 05-2007

**Parameter**

| Menu point [EN] [DE] | Description | Application | Setting range | Factory setting |
|---|---|---|---|---|
| 46 [SensorUp] [SensOben] | Set upper sensor operation. Off: Sensor is switched off. (It is not possible to switch off both sensors at the same time) Auto: Sensor switches automatically to "Dynamic" if required. Dynamic: The sensor only reacts to moving objects. | Improvement of the detection safety in case of external influences (e.g. strongly reflecting objects in the room). | Off = [0] Auto = [1] Dynamic = [2] | Auto [1] |
| 47 [SensorLow] [SensUnten] | Set bottom sensor operation. Off: Sensor is switched off. (It is not possible to switch off both sensors at the same time) Auto: Sensor switches automatically to "Dynamic" if required. Dynamic: The sensor only reacts to moving objects. | Improvement of the detection safety in case of external influences (e.g. strongly reflecting washbasin). | Off = [0] Auto = [1] Dynamic = [2] | Auto [1] |

**Counter**

| Menu point [EN] [DE] | Description | Output |
|---|---|---|
| 50 [Days?] [SumBetrT?] | Total number of days of operation. Indicates the number of days of operation since commissioning. | [...] Days |
| 51 [Uses?] [SumBenut?] | Total number of uses. Indicates the number of uses since commissioning. | [...] Uses |
| 52 [IntFlush?] [SumIntSp?] | Total number of interval flushes. Indicates the number of interval flushes since commissioning. | [...] Flushing |
| 53 [↯Days] [↯SumBetrT] | Number of days of operation Power-On. Indicates the number of days of operation since the last switch-on. | [...] Days of operation |
| 54 [↯Uses] [↯SumBenut] | Number of uses Power-On. Indicates the number of uses since the last switch-on. | [...] Uses |
| 55 [↯IntFlush] [↯SumIntSp] | Number of interval flushes Power-On. Indicates the number of interval flushes since the last switch-on. | [...] Flushing |

B539-0018&BDC © 05-2007

EN

**Unit information**

| Menu point [EN] [DE] | Description | Output |
|---|---|---|
| 60<br>[TypeNo]<br>[Modell-Nr] | Type number.<br>Indicates the article number of the tap (does not apply if the electronics module has been replaced). | [...] |
| 61<br>[SWVersion]<br>[SWVersion] | Software version.<br>Indicates the software version of the tap control system (e.g. [0312] = version 3.12). | [...] XXZZ |
| 62<br>[SerialNo]<br>[Serien-Nr] | Serial number.<br>Indicates the serial number of the current electronics module. | [...] |
| 63<br>[ManufDate]<br>[ProdDatum] | Manufacturing date tap.<br>Indicates the manufacturing date of the tap. Does not apply if the electronics module has been replaced (e.g. [1007] = calendar week 10. 2007). | [...] WWYY |
| 64<br>[TypePower]<br>[Netz/Batt] | Type of power supply.<br>Indicates whether it is a mains-operated (AC) or a battery operated (DC) tap. | DC = [0]<br>AC = [1] |
| 65<br>[Battery%]<br>[Batterie%] | Battery capacity.<br>Indicates the current battery capacity in %. The battery must be replaced at 00 %. | [...] % |

## Service work

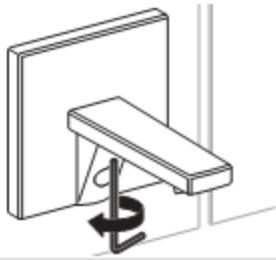
The following service work is described here:

- Adjusting the water temperature (internal mixer)
- Limit the hot water proportion
- Reset sensor

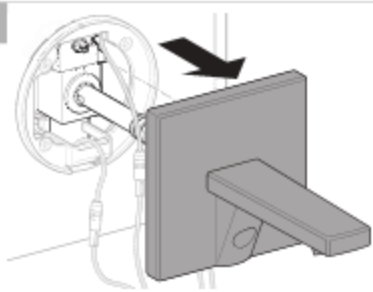
### Adjusting the water temperature (internal mixer)

Applies to all models with internal mixer.

**1**

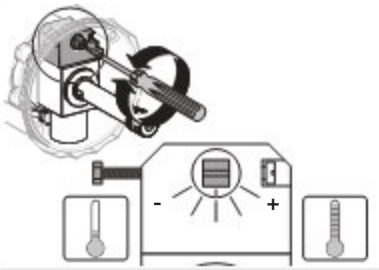


**2**

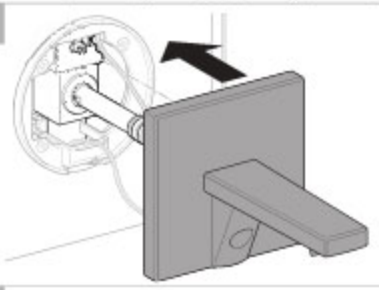


B539-001&BDC © 05-2007

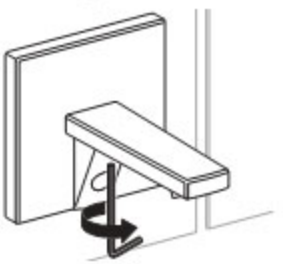
**3** Set the mixer using a screwdriver, clockwise = cold, anti-clockwise = hot. The proportion of hot water lies at around 5 - 95 %




**4**



**5**



**Result**

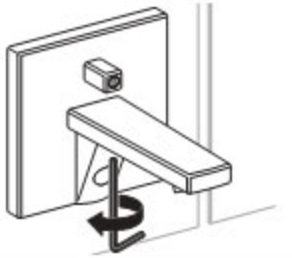
The temperature is now set.

Carefully check the temperature that has been set. If necessary, set temperature again.

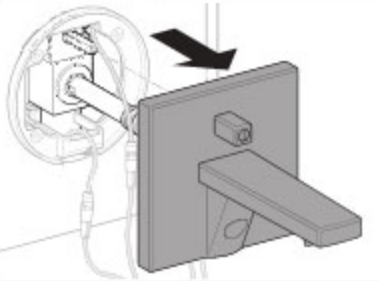
**Limit the hot water proportion**

The proportion of hot water may be limited to a range of 50 - 95%.

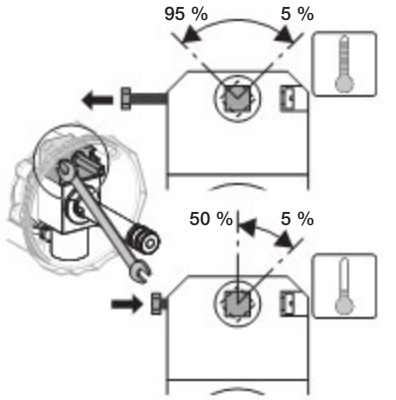
**1**



**2**



**3** Set the screw on the side, unscrew = increases the proportion of hot water, screw-in = decreases the proportion of hot water



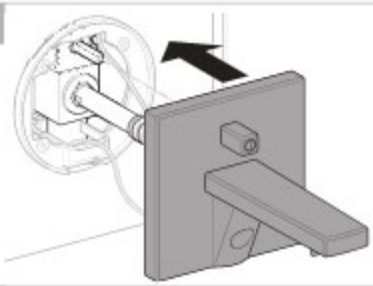

B539-0018&BDC © 05-2007



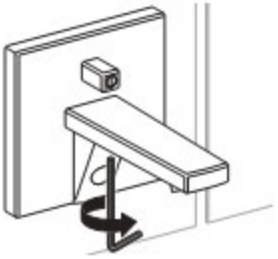
GEBERIT

EN

**4**



**5**



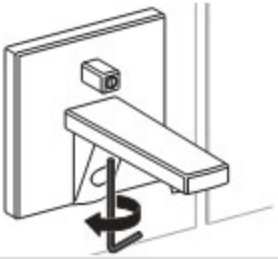
**Result**

The proportion of hot water is now limited.
Carefully check the temperature that has been set. If necessary, set the temperature again.

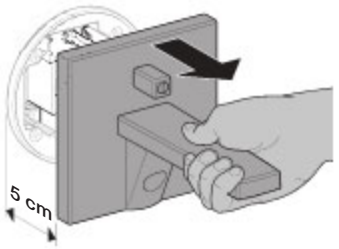
**Reset sensor**

The sensor relearns the surroundings.

**1**

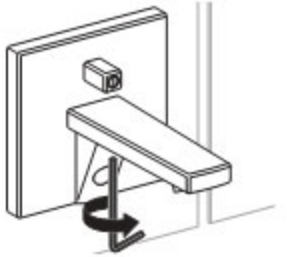


**2** Pull out the cover 5 cm and wait for 3 seconds




**3** Completely re-insert the cover and wait for 15 seconds. The sensor relearns the surroundings. Do not disturb the process through movements or objects in the detection range. The procedure is finished when the water stops.

**4**



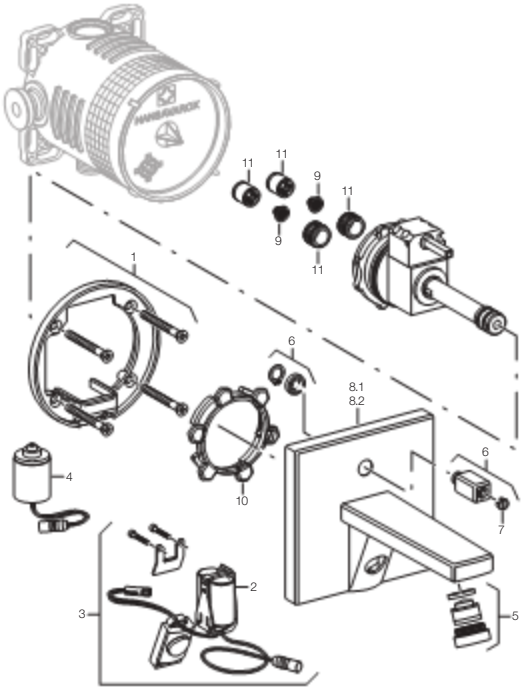
**Result**

The sensor is now set.

B539-001&BDC © 05-2007

## Spare parts

### Spare parts HyTronic87




| Pos. | Designation | Art. no. | Note |
|---|---|---|---|
| 1 | Solenoid support HyTronic87/88 | 241.659.00.1 | |
| 2 | AC adapter set | 240.747.00.1 | |
| 3 | Electronics module HyTronic87 | 241.657.00.1 | |
| 4 | Solenoid valve | 240.797.00.1 | |
| 5 | Tap aerator 6.0 l/min. | 242.030.21.1 | |
| 6 | Mixer lever set HyTronic87/88 | 241.660.21.1 | |
| 7 | Temperature indicator HyTronic85-88 | 241.655.00.1 | 5 pieces |
| 8.1 | Base unit HyTronic87 with mixer, short outlet (150 mm) | 241.663.21.1 | |
| 8.2 | Base unit HyTronic87 without mixer, short outlet (150 mm) | 241.661.21.1 | |
| 9 | Basket filter | 244.004.00.1 | 2 pieces |
| 10 | Bajonet nut with spring HyTronic87/88 | 241.665.00.1 | |
| 11 | Set with seals and non-return valve HyTronic87/88 | 241.666.00.1 | |

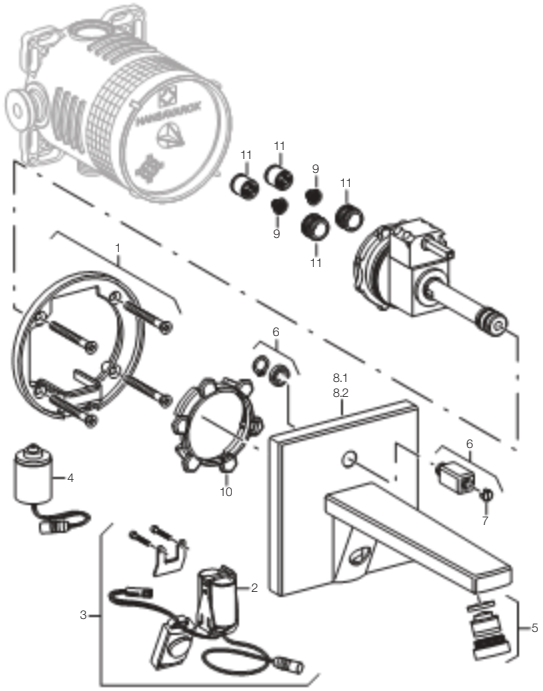
B539-0018&BDC © 05-2007



GEBERIT

EN

**Spare parts HyTronic88**




| Pos. | Designation | Art. no. | Note |
|---|---|---|---|
| 1 | Solenoid support HyTronic87/88 | 241.659.00.1 | |
| 2 | AC adapter set | 240.747.00.1 | |
| 3 | Electronics module HyTronic88 | 241.658.00.1 | |
| 4 | Solenoid valve | 240.797.00.1 | |
| 5 | Tap aerator 6.0 l/min. | 242.030.21.1 | |
| 6 | Mixer lever set HyTronic87/88 | 241.660.21.1 | |
| 7 | Temperature indicator HyTronic85-88 | 241.655.00.1 | 5 pieces |
| 8.1 | Base unit HyTronic88 with mixer, long outlet (200 mm) | 241.664.21.1 | |
| 8.2 | Base unit HyTronic88 without mixer, long outlet (200 mm) | 241.662.21.1 | |
| 9 | Basket filter | 244.004.00.1 | 2 pieces |
| 10 | Bajonet nut with spring HyTronic87/88 | 241.665.00.1 | |
| 11 | Set with seals and non-return valve HyTronic87/88 | 241.666.00.1 | |

B539-001&BDC © 05-2007

## Disposal

**Constituents**

This product complies with the EU directive 2002/95/EC RoHS (Restriction of Hazardous Substances).

**Disposal**

In line with EU directive 2002/96/EC WEEE (Waste Electrical and Electronical Equipment), manufacturers of electrical equipment are obliged to take back old equipment and to dispose of it correctly.

The symbol indicates that the product cannot be disposed of with the normal household waste. Old equipment should be returned directly to Geberit where it will be disposed of correctly.

Addresses to which equipment can be returned are available from the responsible Geberit sales company or at www.geberit.com.

## Contact

If you have any queries or problems, please contact the Genberit distribution partner in your country or see www.geberit.com.

B539-0018&BDC © 05-2007



www.qssupplies.co.uk